MP|MODERNIZA

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Weighing Equipment

User manual VERSION 2.0 Revision 1

MP|MODERNIZA

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0. INTRODUCTION

The main function of the weighing equipment is to determine the "weight" of the car and/or the counterweight.

In addition, it can also be used to determine other data, such as the voltage in the different cables *(maximum 8)*; to monitor the results and adjust the equipment accordingly to equalize the voltage in each cable.

1. CONTENTS OF THE EQUIPMENT SUPPLIED

The measuring equipment is supplied in a case containing the following material:

. sensors with USB connection.
. control equipment.

Photo	Description	No of units
	Case for carrying the measurement equipment.	1
	Layout and position of the parts.	
	Control equipment - Omega 800 –R, for a maximum of 8 cables	1
	Sensor Model RTM 1 with cable and USB connection.  Code 006251 Series 11P550 M13 Valid for cables with a diameter of 5 to 13 mm	6

2. RECOMMENDATIONS

This manual contains the information required for using the measurement equipment and for obtaining the "weight" of the car and counterweight.

Please read the manual carefully, as this may help to make the use of the equipment easier. However, in the event of queries, or if improvements or corrections are required due to errors in the transcription or interpretation, please contact our personnel.

3. TECHNICAL SPECIFICATIONS

	Electrical specifications of the Equipment
Nominal voltage	80 / 260 Vac
Maximum current intensity	130 mA
Nominal frequency	50 –60 Hz
USB connection capacity	8 RTM sensors
Comments	⚠ Power source susceptible to short circuit. Fuse cannot be replaced

	Specifications of the RTM sensor
Cable diameter	From 5 mm to 13 mm
Measurement range	From 0 to 800 kg
Maximum load	800 kg
Breaking load	1600 kg
Temperature range	From – 5º C to 70 ºC
Length of cable connection	2 meters

	Specifications of the casing
Degree of protection	Safety rating IP – 50
Casing plastic	V0 fireproof

4. PROGRAMMING KEYBOARD AND OPERATION

The RTM sensor, once installed on the cable, sends a signal to the **control equipment** produced by the presence of the load in the car **(CWT)** or on the counterweight **(CTWT)**. The control equipment receives this signal and converts it into information, useful when making decisions concerning the control of lift weights.

-Press the MENU key for **3 seconds** to browse through the different programmable parameters.

-Press this key to go to the parameter to be programmed. Once displayed on the screen.


Press this key 

for **3 seconds** to go directly to the Cable Voltage parameter (**WRT**).

-Press this key to modify the digit selected.- When this key is pressed, you go directly to the value established for the selected parameter.


Press this key 

directly after setting the **ZERO** parameter and the car weight **(CWT)** or the counterweight weight (**CTWT**) is displayed, depending on where the sensors are installed.

5. PROGRAMMING

KEYBOARD AND HOW TO USE IT

- Press 

until the screen displays the parameter to be modified
- Press 

to enter the selected parameter.
- Press 

to change the value.
- Press 

twice to save the changes. When the value has been saved the equipment will display the current parameter.
- Press 

again to go the next one.


If you do not press 

twice (2x) the changes will not be saved.

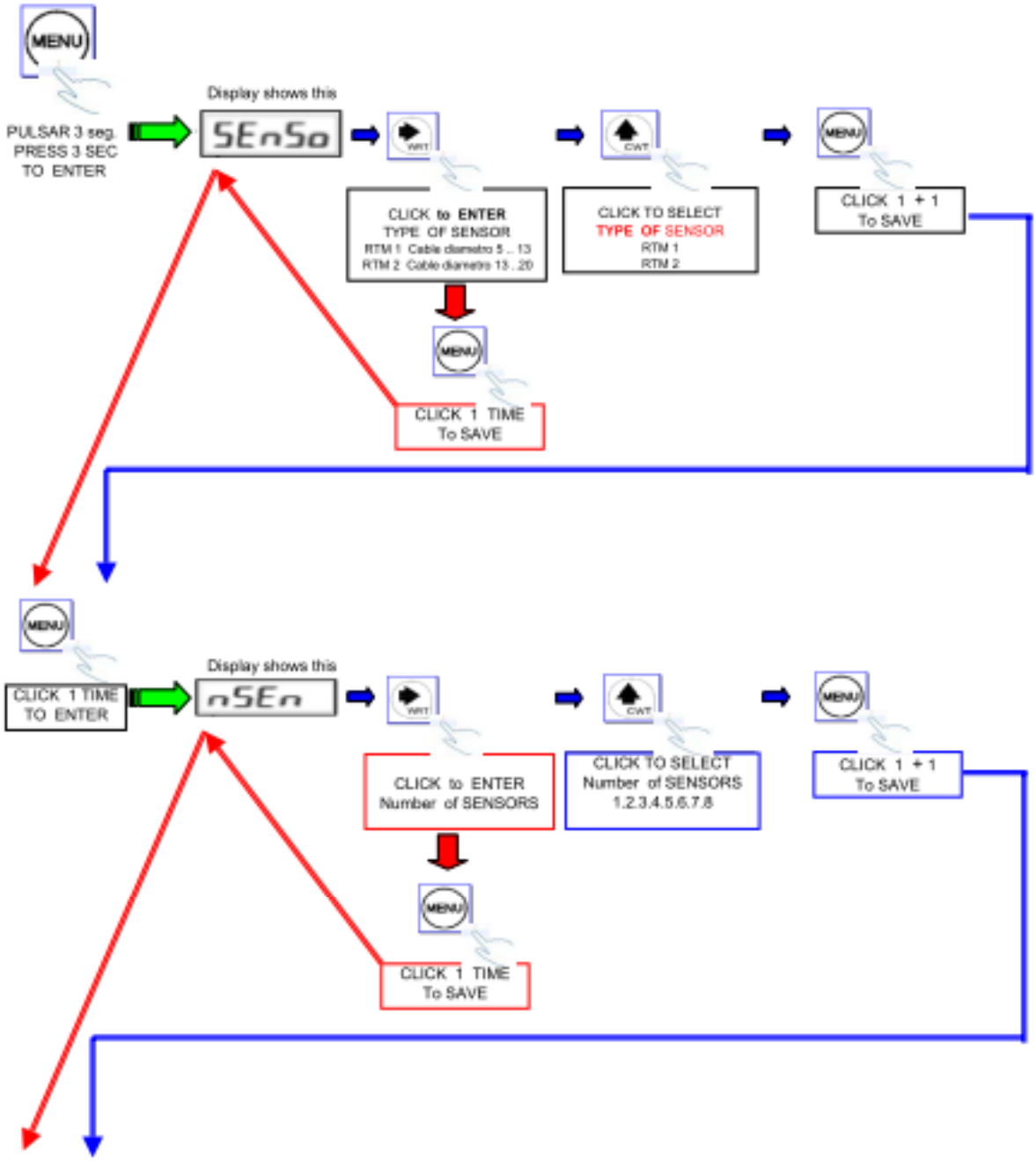
6. RAPID GUIDE TO CALIBRATION

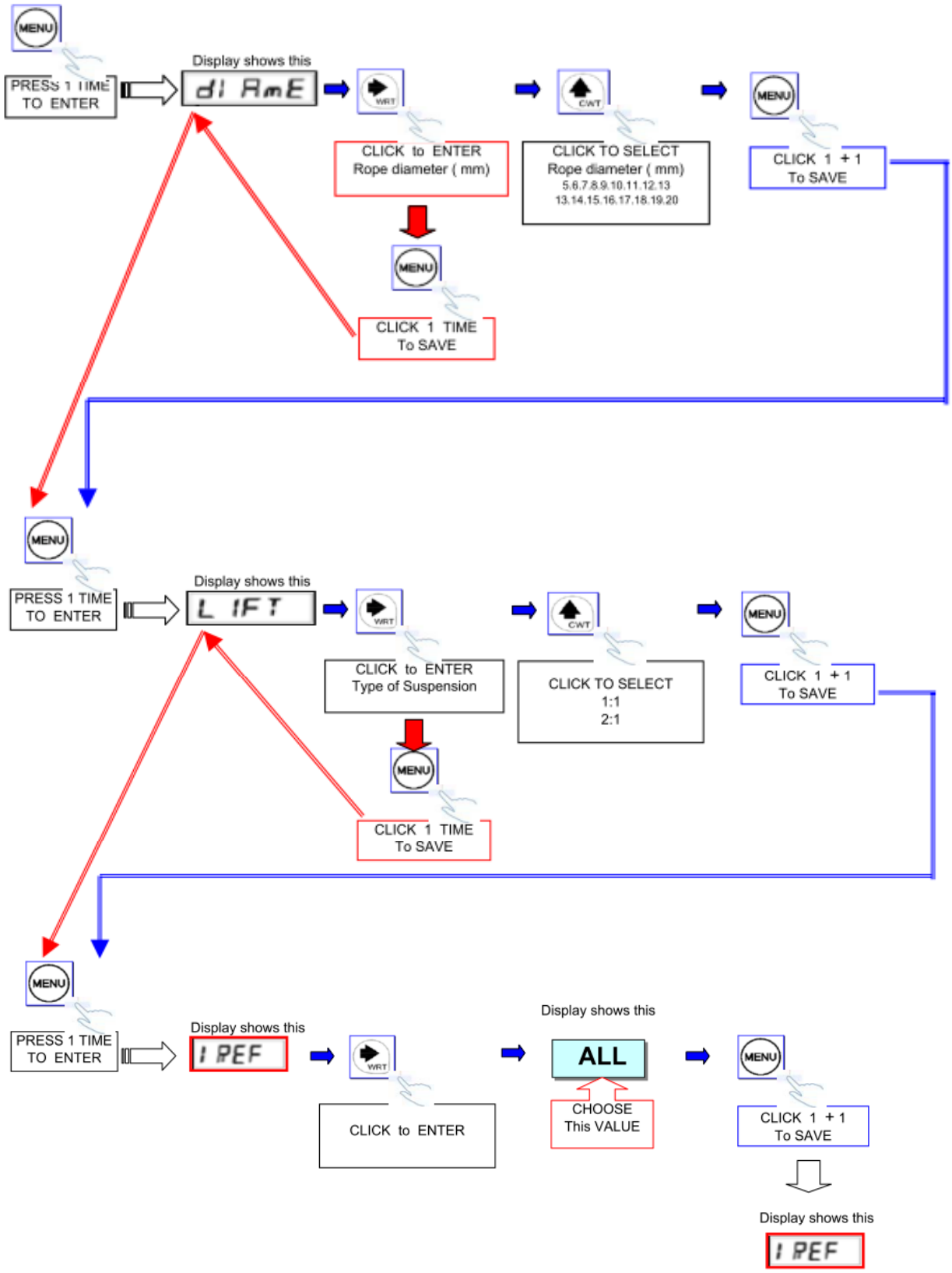
Procedure:

1. Switch on the equipment and check that the power supply is correct.

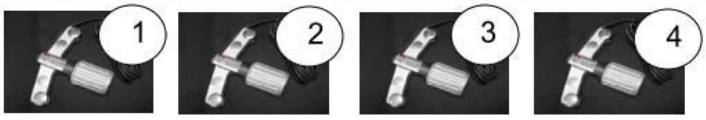
2. IMPORTANT. Connect the RTM sensors to the **control equipment** but **DO NOT INSTALL THEM** on the cables yet.

3. Adjust the required parameters:





Now install the sensors in the ROPES.



NEXT

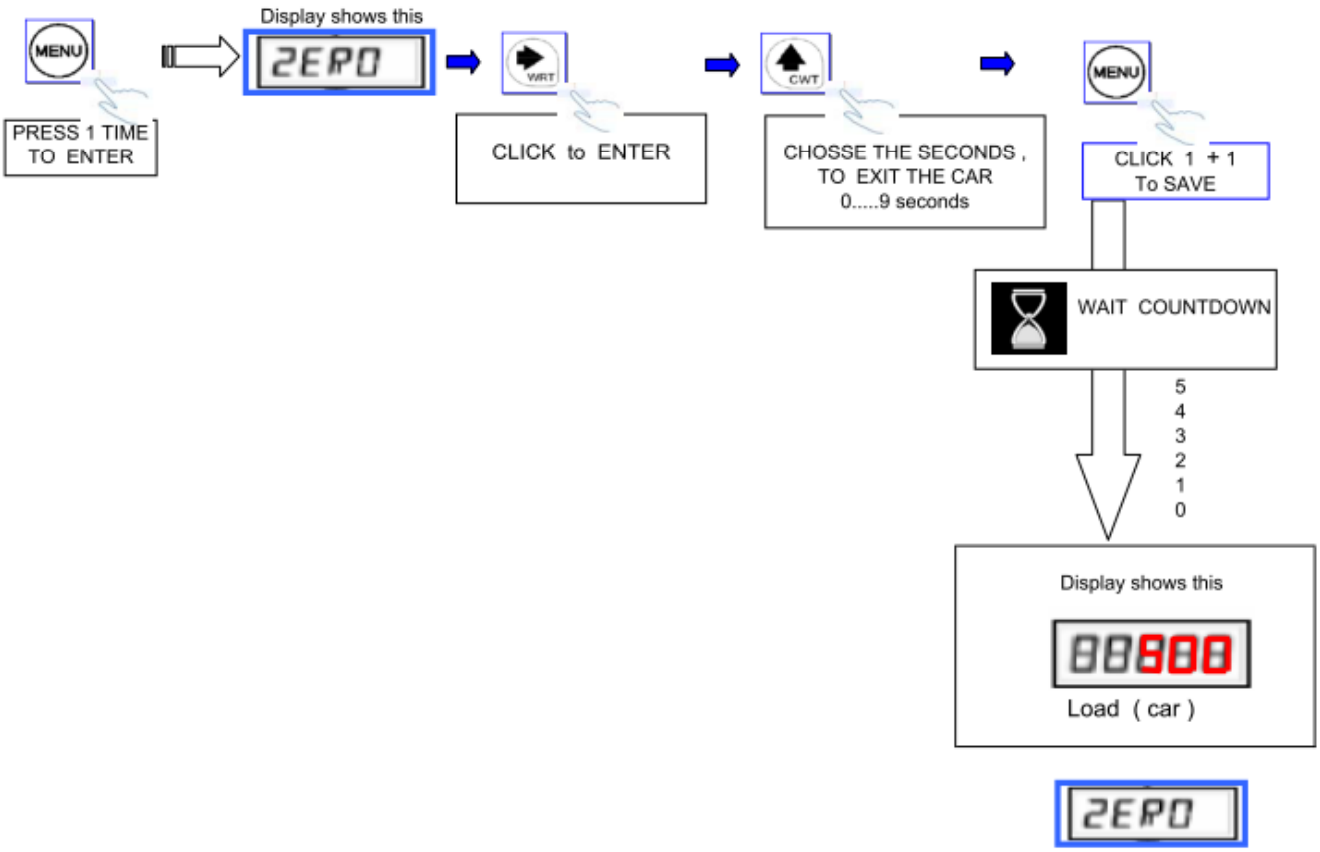
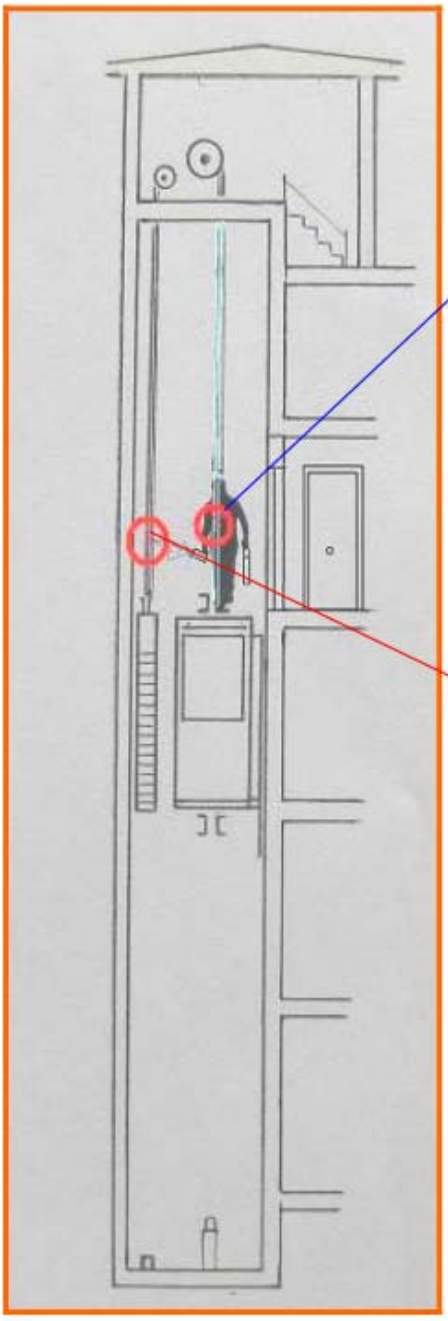

MENU
PRESS 1 TIME
TO ENTER
Display shows this
ZERO
WRT
CLICK to ENTER
CWT
CHOSSE THE SECONDS ,
TO EXIT THE CAR
0.....9 seconds
MENU
CLICK 1 + 1
To SAVE
WAIT COUNTDOWN
5
4
3
2
1
0
Display shows this
Load (car)
ZERO

FIGURE 1. Diagram of the position of the installation (apply all the safety measures to access the shaft and stay on the ceiling of the car, throughout the operation).



Measuring Car weight (CWT)
Position 4.1
Installation of the RTM sensors on the cables in the car frame

Measuring Counterweight weight (CTWT)
Position 4.2
Installation of the RTM sensors on the cables in the counterweight frame

Comments: The values obtained have a margin of error of approximately +/- 30 kg.

7. WEIGHING THE CAR AND COUNTERWEIGHT

8.1 Weighing the car weight (CWT) (The sensors must be installed on the car cables).

After pressing 

the car weight is displayed (CTW). This operation must be performed after adjusting the "**Zero**" parameter.
Note: *see position* ***4.1*** *in Figure* ***1***

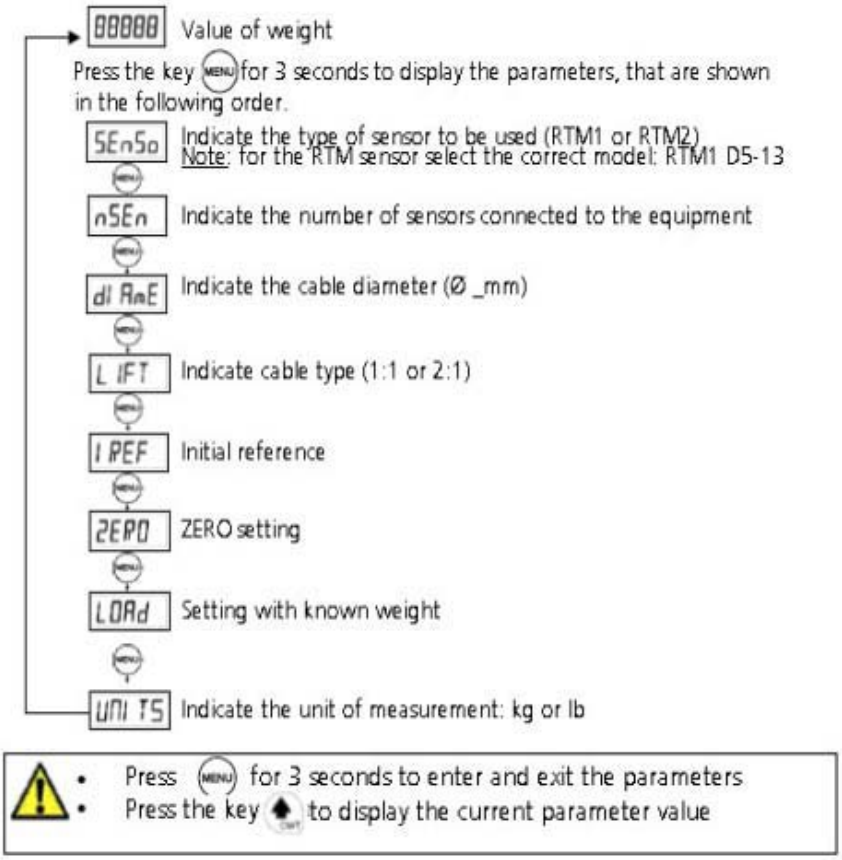
8.2 Weighing the counterweight weight (CTWT) (The sensors must be installed on the counterweight cables).

Press 

to display the counterweight value (CTWT). This operation must be performed after adjusting the **"Zero"** parameter.
Note: *see position* ***4.2*** *in Figure* ***1***

⚠ The measurement of CWT or CTWT will depend on where the sensors are installed (See Figure 1 page 7).

8. DIAGRAM OF PROGRAMMING



9. PHOTOS FOR GUIDANCE (REAL-LIFE INSTALLATION).



Entrance in the shaft and position of the car to access the car ceiling.


Safety



Material required and User Manuals


Material required: RTM sensors and control equipment Omega 800-R

Calibration procedure in accordance with instructions. Connect to the control equipment via the USB connections.

See page 6 Point 3.5 Once this message 

is displayed, proceed to install the RTM sensors on the cables.

Install the RTM sensors on the cables (Car or counterweight). A LED indicates when the sensor is correctly installed.

Preparation for measurement: programming the departure time to allow time to leave the car ceiling.

Completion: Collecting data, packing up material and returning the lift to the - Normal- position.

10. TROUBLE SHOOTING

During the measurement operation, if an error reading is observed on the control equipment display, check the data shown on the screen against the following table.

	Icon	Description of Error	Proposed Solution
1	Err 1	The sensor may be incorrectly connected, broken or the cable is worn.	Check the sensor connection.
2	Err2	Negative overflow from the converter. The sensor gives a negative signal which is too high.	Check the sensor connection as it should not have a negative charge.
3	Err3	Positive overflow. The sensor is bearing a weight greater than the nominal load	Use a different type of sensor that admits a greater load.
4	Err4	Polarity error. This is detected when the equipment is configured to a known weight and the polarity changes, or the weight is not in the car during the configuration.	Check the sensor connection. Reset the "Zero" and the "Weight".
5	Err6	Loss of data in the memory	Re-program the equipment.
6	Err7	The sensor sensitivity is very low. This occurs when the equipment is incorrectly adjusted	Reset the "Zero" and the "Weight".

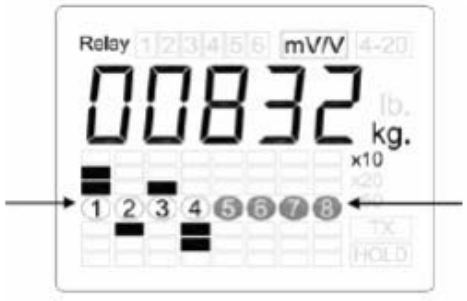
11. ADJUSTMENT AND MONITORING OF WRT CABLE VOLTAGE.

Procedure for checking the cable voltage (WRT) and setting

1.0 Press for 3 seconds. The value of the first sensor is displayed (1)
2.0 Press again to move to the next sensor, and so on up to a maximum of (8) sensors.
3.0 After checking the cable voltage, it is possible to return to any sensor that requires resetting
4.0 Adjust the level of the voltage to the required level following the information displayed on the screen.

Figure 1:2 *(Case of 8 cables to adjust view on LCD display)*

E.g. 1, 2, 3 and 4. These show the different cable voltages to be adjusted.



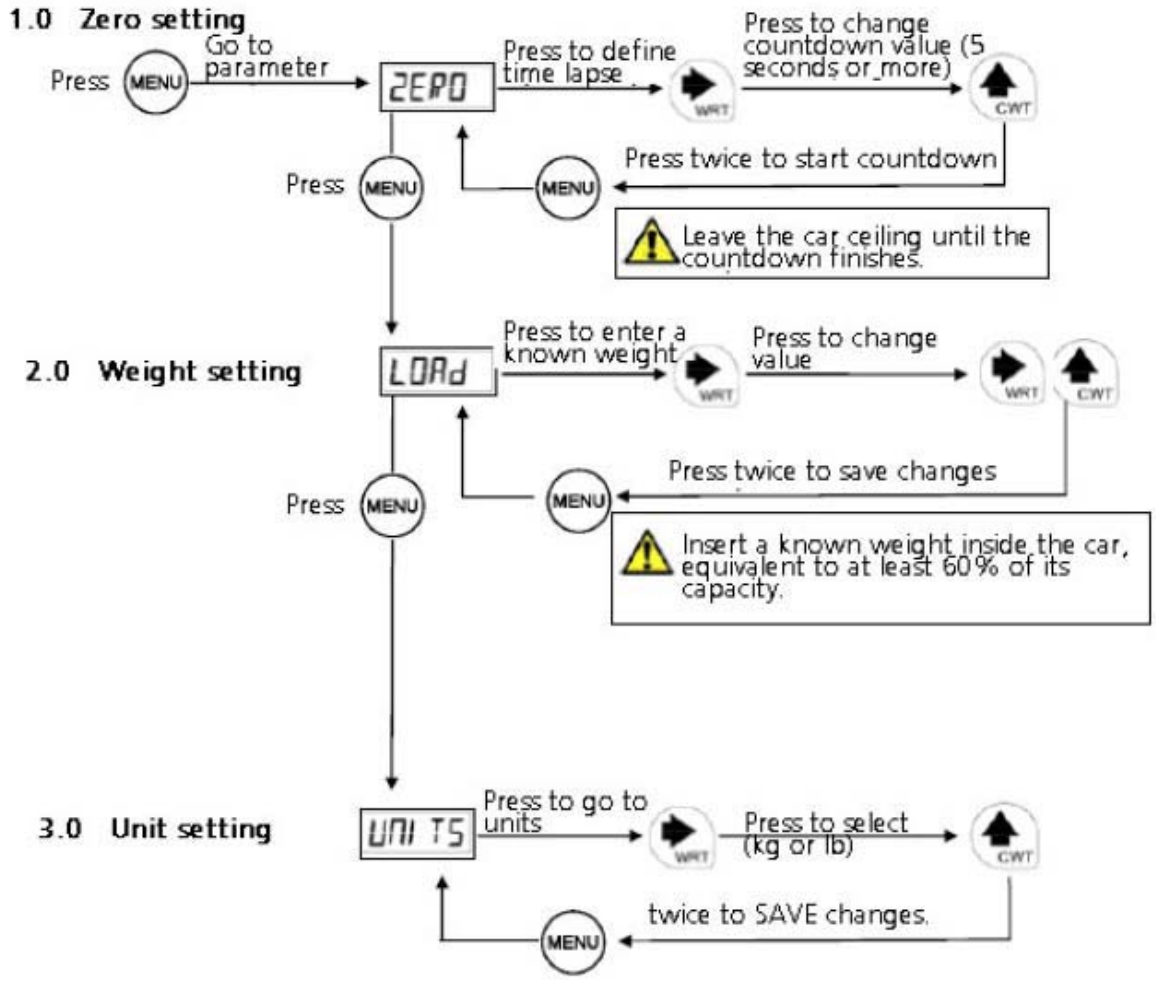
E.g. 5, 6, 7 and 8 show the cable voltage equalized and adjusted

12 .OPTIONAL OPERATION

The equipment leaves the factory with the default calibration. To optimize the results of the measurements, the equipment can be recalibrated by placing a known weight in the car.

Note: *This operation is performed when it is felt that there is too much friction or hitching on the car guides.*

9.1 Calibration using a known weight:



Comments: The description of the instructions and photos given in this manual have been established based on the technical specifications known at the time of drafting this document. The data shown in the following manual may be modified without prior notification.

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